REMEDIATION *to* STEWARDSHIP

A STRATEGIC PLAN FOR ACCELERATED CLOSURE OF SRS INACTIVE WASTE UNITS

SAVANNAH RIVER SITE

S&G

SOIL AND GROUNDWATER
CLOSURE PROJECTS

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Note: This strategy is a plan developed by the Westinghouse Savannah River Company-Soil & Groundwater Closure Projects Program, for consideration and use by the Department of Energy. It will be shared with public audiences and regulators. All decisions in this program are made in consultation with regulators pursuant to the SRS Federal Facility Agreement and applicable environmental laws.

Executive Summary

The Soil and Groundwater Closure Projects (SGCP) of the Savannah River Site (SRS) is proposing a new completion strategy to accelerate its work scope and to accelerate risk reduction to workers, the public, and environment. Remediation of SRS waste sites and groundwater began in the early 1990s. A total of 515 inactive waste sites are now in the cleanup program with more than 60 percent complete or currently in remediation.

By the end of the second quarter FY03, 284 waste sites were complete with an additional 231 to address. The current SGCP remediation baseline plan extends to 2038 at a cost approaching $2.7B. *The new strategy accelerates the cleanup completion by 15 years.* A transition to long-term stewardship is expected by 2023 with an estimated cost reduction of $450M. Accelerating the remediation plan also translates into faster risk reduction and the completion of cleanup in entire areas of the site.

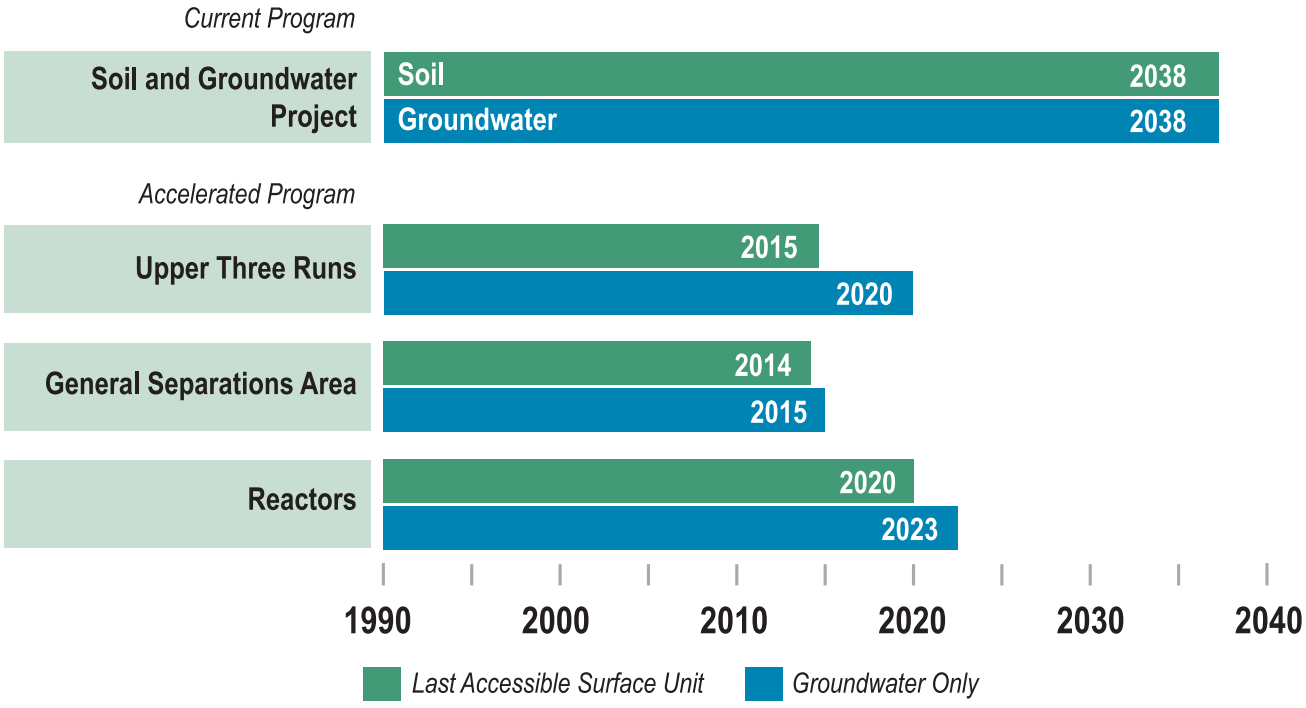
SRS plans to complete up to more than 70 additional waste sites in the next three years. *Closure of these waste sites by the end of 2006 represents one-third of the entire to-go scope in the SGCP program* and includes final closure of the largest and highest risk site, the Old Radioactive Waste Burial Ground.

The completion strategy features effective project management, innovative technologies, and strong working relationships with regulatory agencies. The strategy focuses on the following key initiatives:

- Implement an area-by-area remediation strategy as a means of bringing closure to whole areas of the site.
- Complete work in sequence with Deactivation & Decommissioning activities wherever possible.
- Accelerate the completion of high-risk waste sites to protect workers and the public.
- Deploy low-cost technologies and natural remedies where feasible.
- Negotiate in-place waste stabilization whenever possible to minimize costs and maximize schedule acceleration.
- Expand approaches that streamline regulatory documents and processes.
- Further accelerate project closure by formally transitioning complete sites to long-term stewardship.
- Gain approval for deletion of whole areas of SRS from the CERCLA National Priority List as each achieves end state.

The completion strategy also continues to utilize cost-effective technologies and natural remedies. Cost reductions and effective cleanup will be achieved with:

- Passive treatment systems such as in-well vapor stripping, barometric pumping, and microblower technologies to treat solvents.
- Natural treatment systems such as phytoremediation and bioremediation technologies and monitored natural attenuation to manage tritium and treat solvents.
- In-situ waste technologies to minimize waste movement and stabilize radionuclides in place.
- Solvent vacuum extraction technology in lieu of expensive pump-and-treat at groundwater remediation locations.



Proposed Savings in Cost and Schedule: Comprehensive Soil and Groundwater Program

Program complete 15 years ahead of schedule at a savings of $450 million

Whole areas of environmental remediation will be completed with three project management teams. Goals and completion dates are as follows:

Upper Three Runs Team (A/M Areas, B Area, D Area)

Goal – Area Surface Units Completion by 2015; Groundwater Completion by 2020
Major Challenge – removing solvents in groundwater

General Separations Team (F/H Areas, E Area, TNX Area, Central Shops)

Goal – Area Surface Units Completion by 2014; Groundwater Completion by 2015
Major Challenge – mitigating the release of tritium and metals from radioactive burial ground to nearby Fourmile Branch

Reactors Team (C, K, L, P, R Areas)

Goal – Area Surface Units Completion by 2020; Groundwater and Surface Water Completion by 2023
Major Challenge – stabilizing radionuclides in subsurface soil.

Strategic influences such as land use are factored into the new completion strategy. SRS, with public input, has established a future-use policy that anticipates the expansion of missions at the site. The future-use policy ensures consistent future utilization and development of site land and facilities and enables SRS to remain a vital national asset. *Cleanup of waste sites and groundwater is key to this asset.*

Public participation and regulatory interaction are very important strategic influences. SRS has built strong working relationships with regulatory agencies and other stakeholders such as the Citizens Advisory Board and Citizens for Environmental Justice. These stakeholders are committed to environmental cleanup. SRS is also very committed to this cleanup and values communication with stakeholders as a priority.

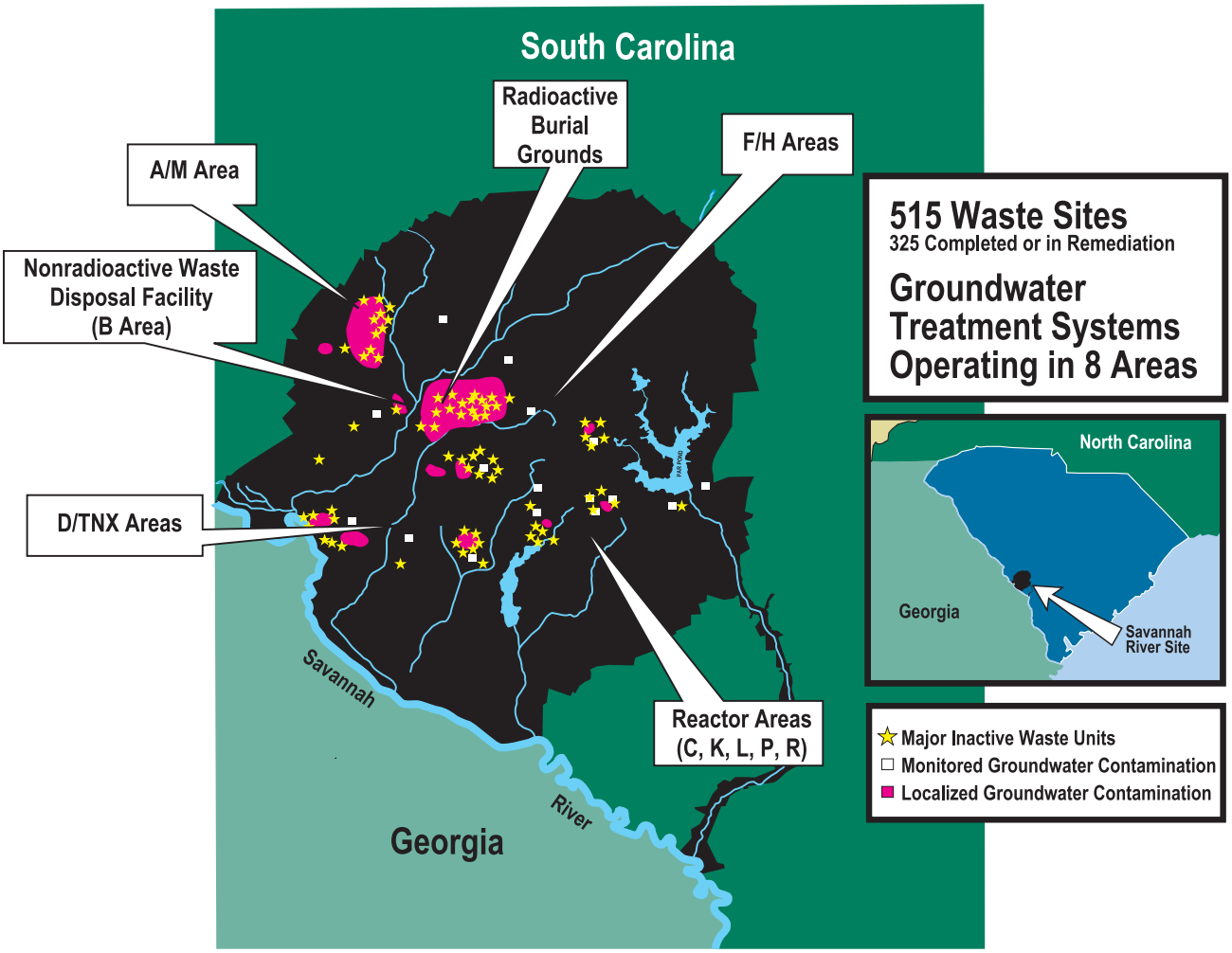
Introduction

In its Top-to-Bottom Review of the national Environmental Management program, the Department of Energy (DOE) called on its sites to find ways to reduce the cost and duration of its cleanup program. SRS has accepted this challenge and in turn has proposed a new completion strategy to accelerate its scope and reduce risk to workers and the public. In support of this refocusing, Soil and Groundwater Closure Projects (SGCP) contributed substantially to the development of a site-wide proposal, the Program Performance Management Plan (PPMP). Recent contract negotiations between Westinghouse Savannah River Company and the DOE have served to further endorse and promote accelerated facility and waste site closure.

The strategy described here encompasses, and in many respects, surpasses those goals and actions specified in the PPMP and supports subsequent negotiations. It further identifies a comprehensive approach for achieving total program completion with significant savings in both time and money.

The current remediation baseline plan, which supports the approved Federal Facility Agreement (FFA), extends to 2038 at a cost approaching $2.7B. However, SGCP is proposing an accelerated transition from remedial activities to long-term stewardship and establishes the means, by project area, to complete this transition by 2023 with a cost reduction of at least $450M. This plan further proposes bringing all surface units to remediation by 2020 leaving only groundwater units to be completed in the ensuing time period.

This strategic plan 1) briefly reviews the current program; 2) proposes strategic initiatives essential for program completion; 3) reviews various strategic influences; and 4) provides plans for specific project areas and regulatory agreements that ensure success.



Soil and Groundwater Closure Project Areas

Part I: Current SRS Soil and Groundwater Closure Program

The SRS Soil and Groundwater Closure Program has successfully remediated over half of the program's 515 inactive waste sites; deployed numerous innovative technologies to expedite the cleanup process; and established itself as a benchmark for the DOE complex. This section will provide an abbreviated overview of some of the key elements of the program and a description of its basic scope and organization.

The program mission is to remediate waste sites and groundwater units, thereby reducing risks to the environment for future land use and new missions. SGCP approaches environmental restoration at SRS using the following strengths:

- Effective Project Management
- Innovative Technologies
- Regulatory Communications and Negotiations

Effective Project Management

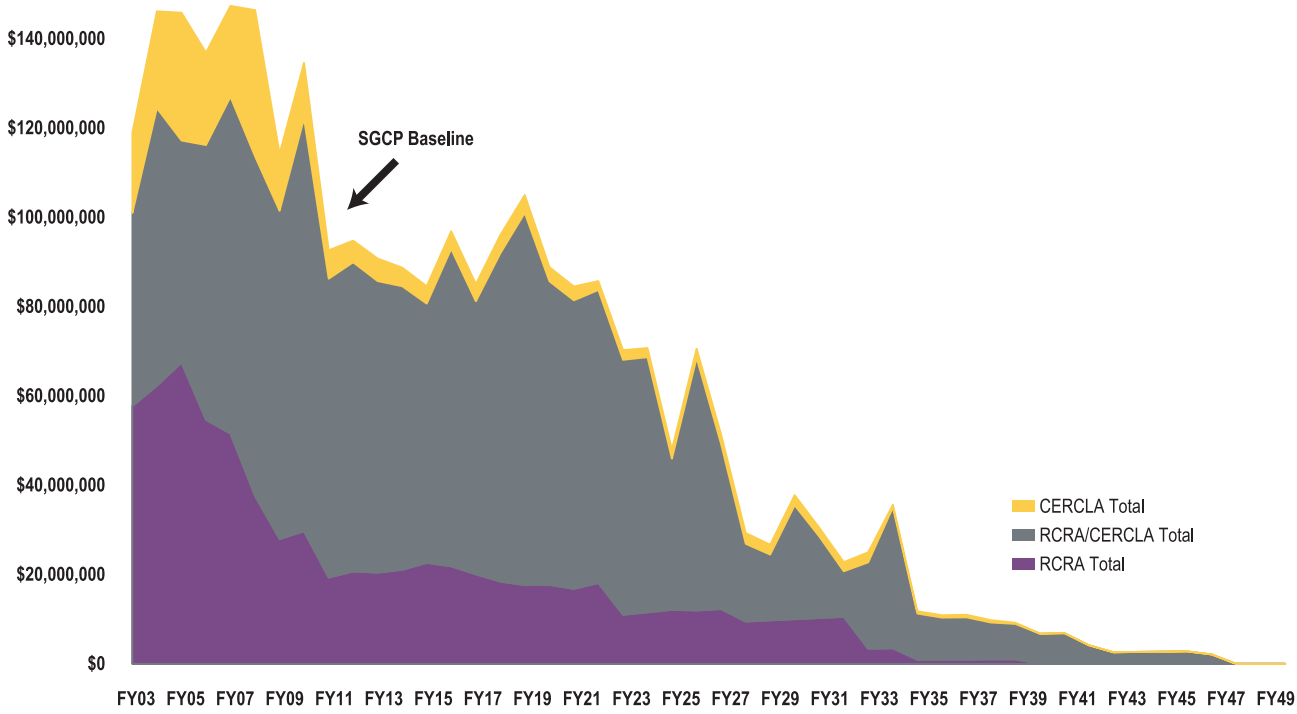
Scope

Today the site's 515 waste units and groundwater units are divided physically into three major project areas: Upper Three Runs, General Separations, and Reactor Areas. Each of these areas is the specific responsibility of a Project Manager who assumes ownership for the area's entire scope, cost and scheduling elements. The work also includes the operation of groundwater treatment units in A, B, C, E, F, H, M and TNX areas.

Baseline Cost and Schedule

An important aspect of SGCP's project management is the effective development and control of its project scope, schedule and costs. The program develops and maintains a baseline that provides a point of control during implementation of the cleanup process. The individual project baseline scope (i.e., control account) is depicted through time, and major deliverables are identified via the life-cycle schedule. The associated costs of the scope and schedule baseline components are portrayed within the project's life cycle cost estimate. Scope, schedule and cost baseline revisions are approved through a multi-year baseline change control process. This information is available by project for each of the 515 individual waste units within the project files of SGCP at SRS. This process provides a basis for planning remediation, assessment and site completion. This multi-year baseline management process meets or exceeds change control and project management criteria as agreed to by the Department of Energy.

SGCP's remaining scope consists of about 230 Waste Sites consolidated into 100 projects. Approximately 60 of these projects are active in the current fiscal year. The organization's scope, regulatory requirements and execution strategy are defined for each of its projects. A Critical Path Method (CPM) schedule is developed per mandated deliverables. A Life Cycle Cost Estimate (LCCE) is then developed for each project at the activity level. The LCCEs are then "mapped" to the schedules, providing resource loaded schedules, which, in turn, serves as the basis for the scope, schedule and cost baseline components. Any and all changes to the baseline are conducted through a formal trend and change control process.



Current SGCP Project Baseline

The following table summarizes Soil and Groundwater Project's project areas in terms of the contamination sources and technologies deployed in each area.

Project Areas	Primary Waste Units Remaining	Contamination Sources	Technologies Deployed or Anticipated
Upper Three Runs Projects	• A&M Area Groundwater • Western Sector Groundwater • D-Area Operable Units • Steed Pond	Principal contaminants are solvents in groundwater, heavy metals, and radionuclides in sediments	Soil and clay capping, geosynthetic covers, bioremediation, soil vapor extraction, air recirculation wells, barometric pumping, constructed wetlands, Monitored Natural Attenuation, Phytoremediation, Dynamic Underground Stripping(DUS)
General Separations Projects	• Old Radioactive Waste Burial Ground • H-Retention Basin • F & H Seepage Basins • TNX Operable Unit • HP-52· Warner's Pond • Ford Bldg. Seepage Basin • F&H Area GW Operations • Mixed Waste Groundwater Tritium Project	Principal contaminant is tritium in groundwater, strontium, cesium, cobalt, heavy metals, and solvents in soil and sediments Tritium, strontium-90 uranium-238	Soil and geosynthetic capping, phytoremediation, waste unit consolidation, and groundwater pump and treat methods, in situ grouting technology Flocculation at F/H via large groundwater operating units (interim action), Monitored Natural Attenuation, Base Injection with Funnel and Gate Barrier System for F&H Groundwater; Phytoremediation ongoing for Mixed Waste Groundwater
Reactor Projects	• R- Reactor Seepage Basins • P- Rx Seepage Basins • L- Rx Seepage Basin • CMP Pits • Reactor Discharge Canals • Reactor Groundwater • Process Sewer Lines	Principal contaminants are radionuclides in soil, spent organic chemicals, low-level radioactive debris, tritium, solvents, PCBs, DDT, heavy metals and sulfate	Engineered caps, in situ grouting technology, soil vapor extraction and air sparging, Monitored Natural Attenuation
*Integrator Operable Units	• Upper Three Runs • Four Mile Branch • Pen Branch • Steel Creek • Lower Three Runs • Savannah River • Floodplain Swamp	Radioactive Material in sediments and soils Note: Rx = Reactor GW = Groundwater	Monitored Natural Attenuation, Posting, Access Control

* Surface water bodies cutting across all six of the site's watersheds are known as Integrator Operable Units (IOUs). As the term implies, these IOUs are the integrators of potential contamination discharged to surface water or groundwater, including the Savannah River floodplain and any contiguous wetlands. These units represent possible paths of contamination from SRS activities to offsite receptors and the environment. As such, the IOU program is designed to 1) assess their risk levels and any ongoing impact from active and inactive waste units across the site, 2) identify and implement any needed early actions, 3) and complete final regulatory assessment and monitor previous remedial actions as necessary.

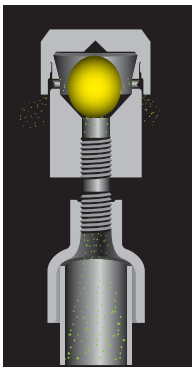
Innovative Technologies

Phytoremediation uses natural vegetation like plants and trees to accelerate contaminant reduction in Fourmile Branch.

Providing remedial action for the site's waste units after nearly 50 years of nuclear material production on site creates a significant opportunity for the site to become a proving ground for the development, deployment, and demonstration of emerging cleanup technologies. Soil and Groundwater Closure Projects has pioneered the use of over 80 of these technologies to increase its remediation effectiveness and accelerate its capacity to reduce risk.

Examples range from the deployment of vapor extraction technology used on one of the site's highest risk units, to the invention and deployment of various passive remediation devices such as Baroball™, which removes contaminated subsurface soil vapor. In its continued development and deployment of new technologies, Soil and Groundwater Closure Projects has sought to integrate technology applications, such as using both air sparging and soil vapor extraction to prevent further migration of volatile organic compounds.

The program now uses a variety of natural remedies such as phytoremediation (using natural vegetative processes), bioremediation (using naturally occurring microbes), and monitored natural remediation (establishing a groundwater mixing zone). These technologies are proving to be a cost efficient means of reducing risk at even the highest risk sites.



The Baroball™ system uses atmospheric pressure to accelerate gas exchange between the atmosphere and the subsurface, thus remediating solvents from soil and groundwater.

Regulatory Communications and Negotiation: Current Status

Accelerate Decisions With Regulators

Soil and Groundwater Closure Projects is driven by two federal statutes: the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response Compensation and Liability Act (CERCLA). In addition to these two statutes, waste unit remediation and closure are subject to the requirements of consent decrees, and a Federal Facility Agreement (FFA) among DOE, the Environmental Protection Agency (EPA) Region IV and South Carolina Department of Health and Environmental Controls (DHEC). The agreement specifies when Soil and Groundwater Closure Projects will address contamination or potential contamination at waste units in accordance with regulatory requirements. Soil and Groundwater Closure Projects currently enjoys a strong working relationship with the three parties. The relationship allows new and innovative proposals as early as possible to streamline the remediation process.

The use of a Core Team, comprised of regulators, the DOE and SGCP personnel, has greatly improved communication and productivity. The team allows all parties to negotiate waste unit resolution at an earlier stage than any previous process. Regulators have expressed their pleasure with the results of this process and are promoting it as an example to be followed throughout the country.

Moving Forward: Transition to Long Term Stewardship

SGCP is ready to transition scope to long-term stewardship. Today, sixty percent of the waste units are complete or in remediation.

The current cost to complete FFA commitments stands at $2.7B (including escalation). As stated previously, without acceleration, this effort would not reach completion until the year 2038.

In keeping with the aggressive risk reduction called for by the DOE in its Top to Bottom Review, SRS-ER will significantly drive down the program's costs and schedules. SGCP will accomplish this schedule by implementing a completion strategy that focuses on continued technology innovation, stakeholder communication and negotiation and disciplined project management.

Part II: Completion Strategy

Vision

The vision of the Soil and Groundwater Closure Projects organization is to complete environmental restoration in whole areas of the site and turn over scope for Long Term Stewardship in a much shorter time frame than is reflected in today's schedules. SGCP has established a goal of achieving $450M in cost savings while completing remedial action on the current inactive waste sites 15 years sooner than anticipated (2023). By so doing, the program will reach the stewardship phase on all sites.

Consistent with its recently revised contract with the DOE, SGCP now plans to accelerate program completion by remediating additional sites beyond the 40 sites already scheduled in Appendix E of the FFA. Among other candidates, it anticipates completing numerous sites associated with near-term deactivation and decommissioning activities. Additional sites are being planned for closure by the end of the contract period in FY06. To accomplish this will require a focused effort in conjunction with regulatory stakeholders to expedite the approval process. If successful, this effort will mean that 70 percent of SGCP's 515 units will be closed by FY06.

To achieve this vision, Soil and Groundwater Closure Projects will deploy a strategy that focuses on the following key initiatives:

- Implement an Area by Area Remediation Strategy as a means of bringing closure to waste sites located near currently active facilities as well as complete work in sequence with Deactivation & Decommissioning Activities.
- Accelerate the completion of high-risk sites in accord with the site's end state plan.
- Deploy low-cost technologies and natural remedies while focusing on accelerated risk-based cleanup.
- Negotiate in-place waste stabilization whenever possible to minimize costs and maximize schedule acceleration.
- Further accelerate project closure by formally transitioning completed sites to Long-Term Stewardship.

Implement an Area by Area Remediation Strategy

The physical state of a site after remediation activities have been completed is known as its end state. By looking holistically at the site areas, SGCP can appropriately sequence the cleanup program such that optimal area solutions can be achieved.

This strategy offers the following advantages:

- A single Record of Decision (ROD) can address environmental releases for an entire Site Area.
- The focus on an entire area can include presumptive remedies.
- A larger reduction of contaminated area can be achieved.

When an area is remediated, the land is in a predictive end state and stewardship can then follow. Furthermore, SGCP is pursuing the possibility of being able to delete these remediated areas from the CERCLA National Priorities List (NPL) of superfund sites.

The presumptive remedy for sites with minor risk will be to manage contamination in place with institutional controls. The Area ROD will have an institutional control component as part of its remedy and invoke the appropriate Land Use Control Assurance Plan requirements.

Implement an Area Integration Media Strategy (AIMs) in Support of Area RODs

The AIMs approach is designed to support Area Records of Decision. It will consist of the following components:

- Remediate higher risk source units that are separate from operating facilities, but are nonetheless still impacting groundwater.
- Close units in operating areas and monitor them on an area basis per records of decision with institutional control remedies.
- Establish groundwater monitoring zones around operating facilities to evaluate the groundwater; permit managed natural remediation; conduct early detection of contaminant migration, and act in the event the data warrants.
- Confirm cleanup where site watersheds provide comprehensive assessment of the impacts of both the individual waste units located outside the operating facilities and the cumulative effects stemming from any active operating facility sources.
- Negotiate cleanup goals for streams at their confluences at the Savannah River.

SRS plans to complete up to more than 70 additional waste sites in the next three years. Closure of these waste sites by the end of 2006 represents one-third of the entire to-go scope in the SGCP program and includes final closure of the largest and highest risk site, the Old Radioactive Waste Burial Ground.

Accelerate the Completion of High-Risk Sites

To date, SGCP has already addressed the majority of its high-risk sites. It has done so as part of a balanced approach that facilitated the deployment of new technologies and the completion of 284 of the site's inactive waste units.

The focus on risk reduction requires the remediation of remaining high risk sites as the program's first order of business. This effort begins with the accelerated closure of the Old Radioactive Waste Burial Ground, the highest risk site in the SGCP program.

The program has also committed to accelerate contaminant reduction at Fourmile Branch Stream. This initiative involves the deployment of innovative technologies (see below) to reduce the overall contaminant concentrations in this tributary of the Savannah River down to regulatory standards.

Risk levels are based on characterization information that focuses on the potential impact on human health and the environment. Project managers will utilize these established risk levels as they further assess current scope with an eye toward maximizing risk reduction.

Regulatory Actions to Pursue

1. Develop Area Records of Decision that govern whole areas of the site.
2. Submit Interim Records of Decision for institutional controls on inaccessible sites located in or near active facilities.
3. Pursue the mixing zone approach for localized facility groundwater plumes.

4. Establish final monitoring plans at Integrator Operable Units (water sheds) to ensure environmental quality at the site boundary over the long term.

Programmatic Actions Needed

1. Integrate SGCP and facility decommissioning goals on an Area by Area basis.
2. Cast a clear and definitive break between Environmental Restoration activities and Long Term Stewardship.
3. Adjust the scope and dollars in the life cycles to be better delineated with Environmental Restoration activities and Long Term Stewardship functions.
4. Update and integrate facility plans with environmental restoration scope.

Implement the Use of Institutional Control RODs for Multiple Low Risk Sites

Using a Six Sigma process improvement tool, SGCP studied 20 sites that ultimately went to an end state remedy of Institutional Control or No Further Action. These low risk environmental remediation waste sites had a multiyear average cycle time for reaching remedy.

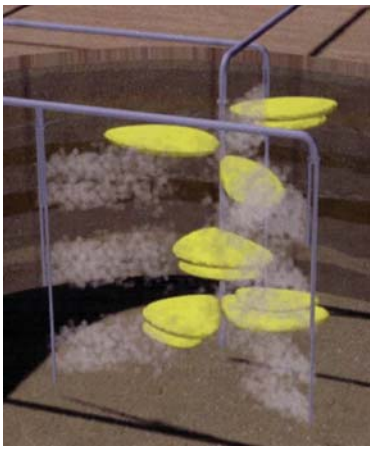
SGCP is now proposing a significant time and cost savings alternative to its stakeholders in the form of an Institutional Control ROD. This innovative approach would establish a simplified process for gaining remedy approval for multiple low risk sites.

Deploy Low-Cost Technologies and Natural Remedies

Geosynthetic capping

SGCP deploys technologies to achieve cost effective results and adjusts technology applications to meet current needs. SGCP has moved from reliance on landfill "muck and truck" techniques and chemical processing of groundwater to focus on passive and natural remedies. These natural processes have resulted in greater cost savings than the more conventional technologies. Good science is proving that natural technologies can be even more efficient and effective. Innovative remediation technology provides the site with a vital tool in its effort to cut costs and schedule. These technologies are shared with other sites across the nation.

The following section summarizes some of the most promising of these technologies and the plans for their use.



Dynamic Underground Stripping (DUS)

Bioremediation

In Situ Waste Site Technologies: Use in situ approaches as a means of minimizing the movement of waste and safely stabilizing contaminants in place.

- Geosynthetic capping and engineered soil capping are effective in preventing rainwater infiltration to safely isolate wastes.
- Soil solidification using special grout mixtures is used to best stabilize and contain radioactive basins.

Solvent Technologies: Use soil vapor extraction technology and air sparging in place of pump and treat systems to accelerate groundwater cleanup.

- Soil Vapor Extraction (SVE) reduces cleanup costs, expedites remediation and increases public and regulatory acceptance.
- Dynamic Underground Stripping (DUS): An additional solvent technology, DUS, combines steam-enhanced extraction with electrical resistance tomography. DUS enhances the recovery of localized solvents from the subsurface by using steam-injection in conjunction with SVE at fifteen times the efficiency of the SVE method alone and sixty times the efficiency of groundwater pump and treat systems.

Natural Systems: Employ natural systems where appropriate.

- Phytoremediation is a natural process that uses plants and trees to clean up contaminated groundwater. For example, in the case of the Mixed Waste Management Facility, tritiated water is being contained by a small sheet pile dam. It is thus diverted and used to irrigate the vegetation in nearby forested areas. The vegetation then consumes and safely releases the tritium by absorption and evapotranspiration, thus decreasing the concentration of the contamination within surface water streams.
- Bioremediation is currently in use to complete the remediation of groundwater under landfill sites. It is likewise used to remediate soils at the Chemicals, Metals, and Pesticides Pits. Nutrients such as oxygen and methane are injected via horizontal wells to stimulate microbes that consume solvents.

Passive Systems: Employ passive systems where they are effective.

- Barometric pumping/Baroball™ Technology removes volatile organic compounds by using the variances in barometric pressure above and below ground. The Baroball™ significantly increases pumping effectiveness by preventing the airflow into a venting well when the pressures reverse.
- Recirculation wells (in-well vapor stripping) treat groundwater contaminated with volatile organic compounds. The technology uses air injected into a groundwater well to strip contaminants and induce the upward flow of the contained groundwater. The treated ground water is then discharged directly back into the well.

Expand Approaches That Streamline Regulatory Documents and Processes

Future positive negotiations with regulators will build on a successful relationship with EPA and the SCDHEC. The focus will be to:

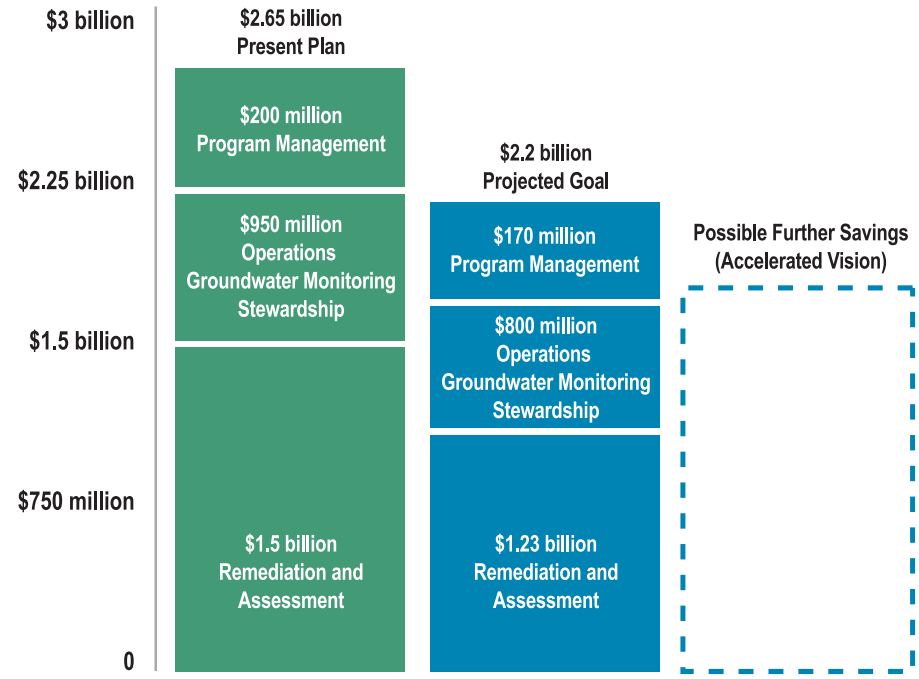
- Evaluate use of Site Area Records of Decision.
- Determine the most effective regulatory guidelines for waste units that fall under dual programs and apply the process that satisfies both.
- Accelerate cleanup actions for remaining similar units by combining units or applying standard remedies.
- Establish monitored natural attenuation guidelines and standards in remediation technologies.
- Determine cleanup standards for groundwater and surface water quality that take into consideration negotiated end states, site control and restricted public access to on-site waters.
- Determine the final risk assessment methodology and remedial action goals for the Integrator Operable Unit (watersheds) program.
- Develop guidelines to assist the transition of regulatory oversight from cleanup document approval to Long Term Stewardship monitoring and assessment.
- Pursue deletion of SRS areas from the National Priorities List.

Long Term Stewardship

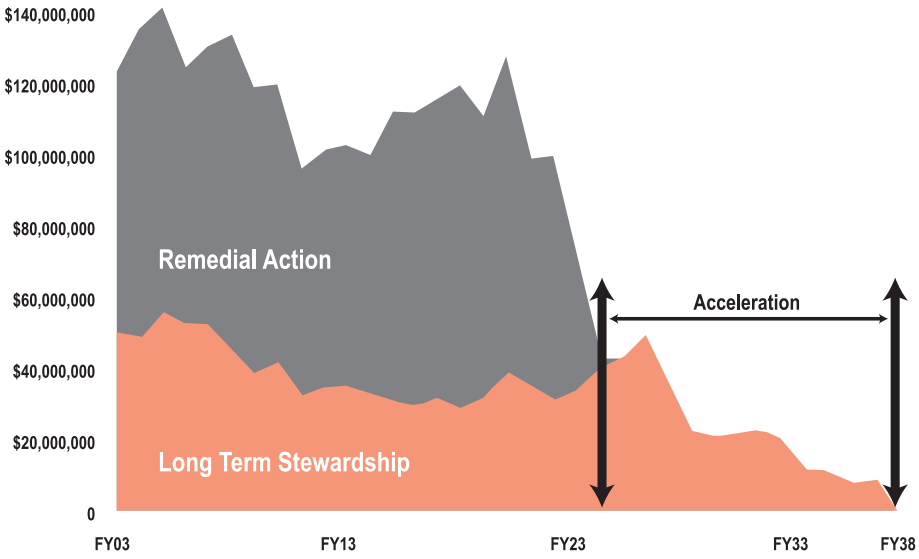
A key component of SGCP's completion strategy is an accelerated transfer of sites to Long Term Stewardship while protecting the health and safety of neighboring citizens, associated workers and the environment.

Long Term Stewardship is defined as the phase when remediation is complete and no further action is needed or when remedial systems are complete and operate with a continuing need for maintenance and monitoring.

The implementation of these actions will greatly reduce the current SRS - Soil and Groundwater Projects profile. The estimated achievable reduction is around $450 million dollars, with a move to LTS as much as 15 years sooner. An accelerated vision will lower cost even further.



Cost Reduction Goals



Accelerated Baseline with Long Term Stewardship

Part III: Strategic Influences

Future Land Use

SRS has established a future-use policy that anticipates the expansion of missions at the site. Land use has been designated as non-residential, with an emphasis on industrial and ecological use. The SRS future-use policy, goals, and objectives have evolved over the past few years and are the results of significant efforts involving internal and external stakeholder participation. The SRS future use policy helps ensure consistent future use and development of site land and facilities and enables SRS to remain a vital national asset. The following programmatic guidelines play an important role in shaping the future land use program:

- A "restricted" use program shall be developed and followed for special areas such as RCRA/CERCLA regulated units.
- SRS boundaries shall remain unchanged, and the land shall remain under the ownership of the federal government, consistent with the Site's designation as a National Environmental Research Park. Residential uses of SRS land will be prohibited.
- SRS shall be divided into three principal planning zones: Industrial, Industrial Support, and Restricted Public Use.

Because SRS is currently, and will likely remain, under federal ownership and control, it has been one of the first DOE sites to establish a Land Use Control Assurance Plan (LUCAP) that documents the desire that future site remedy decisions take that land use into consideration. The parties (EPA, SCDHEC, and DOE) agree that land use controls are necessary to assure the reliability of land use assumptions. The LUCAP supports the SRS Future Land Use Plan and land use controls will be maintained for as long as necessary to ensure the long-term effectiveness of selected remedies.

Institutional Controls

Land use controls include, but are not limited to, institutional controls such as fences, security guards, warning signs, deed restrictions, and land use restrictions. These controls are applied to limit or prevent exposure to contaminants and to ensure that selected land uses are maintained. These administrative mechanisms provide flexibility in the risk decision making process. They also reduce worker risks by physically restricting access to a waste unit.

Stakeholder Participation

A further evolution of the regulatory Core Team concept has been evidenced in the recent commissioning of a set of working teams assigned to respond to the challenge to accelerate closure activities in an even more aggressive manner. These teams are empowered to strategically plan and identify breakthrough initiatives to be reviewed and endorsed by all parties before action begins.

The Citizens Advisory Board will continue to review acceleration strategies and approaches. Close communication with this board will continue on all soil and groundwater activities.

Integration with Deactivation & Decommissioning Activities

Deactivation and Decommissioning activities begin in M Area

SRS has committed to an accelerated cleanup and demolition of its inactive facilities, especially those located outside the site's core area. Initially, facilities in D, F, M and TNX areas are being removed. More will follow, as the site embarks upon an aggressive project oriented closure plan for the majority of its current structures. As indicated in the move to Area RODs, SGCP is proceeding with its regulatory commitments to remediate soil and groundwater release sites in these same areas with an emphasis on those posing the highest risk.

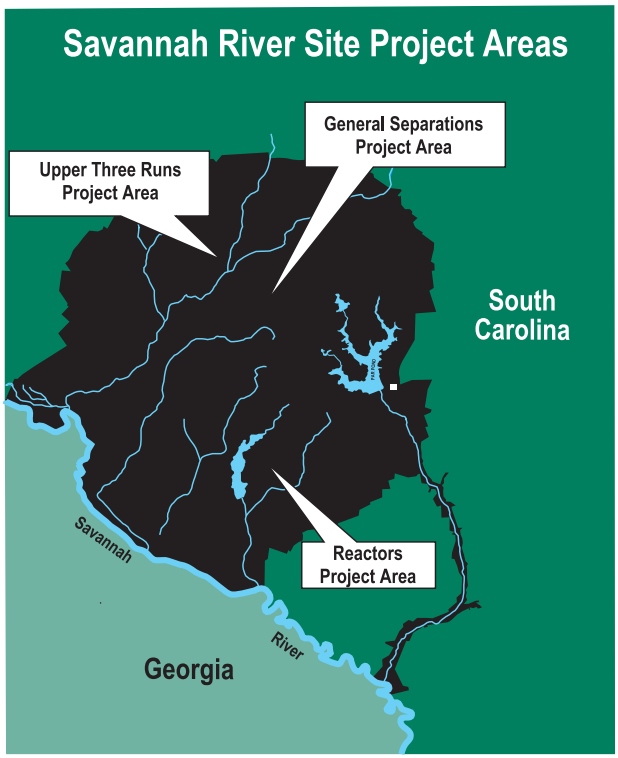
The movement from risk management to accelerated and comprehensive risk reduction requires a coordinated effort on the part of both SGCP and Facilities Decommissioning Projects (FDP). The two are actively working in tandem to assure streamlined decision making, cost efficiency, and regulatory compliance.

Toward that end, SGCP and FDP are meeting on a regular basis to promote and provide mutual support in drafting a protocol which will define the interface between D&D activities and Soil and Groundwater Closure Projects. SGCP is also supporting the drafting of a D&D Business Plan, and is working with FDP in developing a position on the implementation of DOE Order 413.3, as well as other applicable codes and standards.

Other anticipated interactions include development of coordinated implementation schedules and end-state planning, finalization of agreements on points of project closure and transition to Long Term Stewardship, coordinated support of post-closure planning in F and H Tank Farms and other operating facilities. This effort will be supported by special Core Teams focused on D&D and environmental remediation integrated progress. The mutual support and coordination of both FDP and SGCP is deemed essential to the safe and efficient acceleration of risk reduction and area closure.

Part IV: Completion Strategies by Project Areas

Implementation of the accelerated strategy is contingent upon strong performance by the three SGCP project areas: Upper Three Runs (UTR), General Separations Area (GSA), and Reactors (Rx). This section highlights some of the more critical initiatives within each.



At SRS, SGCP is driving down risk, accelerating cleanup and reducing costs significantly.

Upper Three Runs (A/M Areas, B Area, D Area)

Goal – Area Surface Units Complete by 2015/Groundwater Completion by 2020

The Life Cycle Schedules show 2037 as the last remedial action completion milestone. Under the completion strategy, this goal is achievable by 2023.The primary goal is to achieve full source and plume control by 2008. Although initial source control and plume reduction has been achieved to a great degree, remediation of depleted uranium deposits at Steed Pond is needed. Another priority is the resolution of concerns associated with dense non-aqueous phase liquids (DNAPLs), e.g. solvents.

To meet this aggressive schedule, SGCP will build on past successful technology applications and regulator support. The effectiveness of steam heating technologies such as DUS to remove DNAPLs has already been successfully demonstrated. Application of these technologies will be expanded to larger areas within SGCP.

To support the completion of soil and groundwater cleanup in this area, the following key regulatory actions must be successfully negotiated:

- Gain approval of monitored natural remediation/land application and mixing zone/Alternate Concentration Limit over a large area.
- Complete remainder of surface area units in remediation now.
- Establish monitoring network commensurate with facility deactivation.

Upper Three Runs plays a significant role in SGCP as it interfaces with the facility deactivation and decommissioning process at M area. This support and mutual cooperation should be further promoted and developed as A&M area's deactivation is accelerated.

General Separations (F/H Areas, E Area, TNX Area, Central Shops)

Goal – Area Surface Units complete by 2014/Complete Groundwater Units by 2015

The primary goal is to achieve source and plume control by 2012. Much of the progress in this area is contingent on the completion of deactivation and decommissioning of buildings in F and H area. The closure of F Area poses the opportunity to bundle remediation of the inactive waste sites in the area with necessary post decommissioning activities.

To meet its goal, General Separations must first achieve source control and plume reduction sufficient to protect the Fourmile Branch watershed. Although some source control and plume reduction measures have been achieved, a final tritium resolution is needed, possibly using phytoremediation and monitored natural attenuation to reach a more acceptable level of control.

To implement the remedial action, the following changes must be negotiated with the regulators:

- Move ponds and surface water streams to the watershed program (IOU).
- Remediate waste units inside the operating facility boundary with institutional control remedies.
- Remediate groundwater to the maximum extent using natural remediation methods, i.e., phytoremediation.
- Promote monitored natural attenuation for long-term groundwater protection.

Successful implementation of the aforementioned Fourmile Branch initiative in the PPMP can result in an 80 percent contaminant reduction while, simultaneously reducing the need to operate and maintain expensive mechanical groundwater treatment units.

If institutional control RODs can be developed and approved for many of the smaller spill sites remaining in the FFA, completion progress will be expedited greatly.

Another high priority for the General Separations Area is the development and implementation of a whole Area ROD for TNX Area. In addition to completing needed remediation, achieving this goal will exhibit the integrated sequencing of SGCP and FDP cleanup activities and initiate the effort to delete whole areas from the NPL. Through the Core Team process, SGCP is working in concert with DOE, federal and state regulators, and the public to pursue this breakthrough approach.

Reactors (C, K, L, P, R Areas)

Goal – Area Surface Units complete by 2020/Groundwater and Surface water complete by 2023

As previously noted, a primary focus of this plan is to accelerate work on its highest risk sites. The Reactors Project Area will move forward the full scale remediation of its high-risk waste sites wherever possible especially when they can be sequenced with FDP work. As a result, the use of Area RODs are being explored in the remediation of waste sites in each of the reactor facilities in conjunction with associated facility decommissioning efforts.

Overall, the Reactor Project Area's primary goal is to achieve source and plume control and protect multiple watersheds, including the Fourmile Branch watershed. Although some source reduction has been achieved, to reach source and plume control, solutions that assure long-term environmental protection must be agreed upon.

Details of changes that must be negotiated with the regulators include the following.

- Move ponds and canals to the watershed program (IOU).
- Remediate waste units inside operating facility boundaries with institutional control remedies, if warranted.
- Remediate groundwater to the maximum extent by natural remediation methods.
- Promote monitored natural remediation for long-term groundwater protection.
- Approve non-invasive, in place remediation for Reactor seepage basins.
- Establish stewardship institutional controls and monitoring as the only requirements for contamination associated with the large surface water bodies (e.g., Par Pond and L Lake).

The Life Cycle Schedules show 2037 as the last remedial action completion milestone but with the implementation of the completion strategy, completion can be met by 2023.

Completion Strategy Progress: Current Status

Completion Strategy Progress: Upper Three Runs

Construction of the dynamic underground stripping (DUS) project is underway for the A/M-Area Western Sector Groundwater cleanup effort. This innovative technology steam-strip a large quantity of concentrated cleaning solvents out of the groundwater and subsurface soil and significantly cuts the cleanup effort to only a few years. The Western Sector Groundwater cleanup effort follows a one-year successful DUS operation of removing over 70,000 pounds of solvents in another A/M-Area location. The DUS project will remove approximately 1,000,000 pounds of solvents from the Western Sector subsurface.

Completion Strategy Progress: General Separations Area

SRS negotiated an agreement to consolidate five high priority waste sites into one site with one Record of Decision for the General Separations Area Consolidation Unit. This agreement achieves a 99 percent risk reduction of radionuclides to the industrial worker and accelerates remediation of the highest risk waste site in the program by two years. The GSACU plan removes contaminated soil material from the smaller nearby waste sites and incorporates it into the Old Radioactive Waste Burial Ground, including 22 underground waste storage tanks closed with grout. A synthetic clay cap will cover the contaminated soil followed by a layer of topsoil and vegetation to complete closure. SRS also negotiated an agreement to use phytoremediation for controlling releases of tritium-contaminated groundwater from the F-Area Hazardous Waste Management Facilities to Fourmile Branch. This will be accomplished by redirecting the contaminated water from Fourmile Branch to the phytoremediation area. The agreement allows for future expansion of the forested spray irrigation area at the nearby Tritium Phytoremediation Project (TPP).

Completion Strategy Progress: Reactor Area

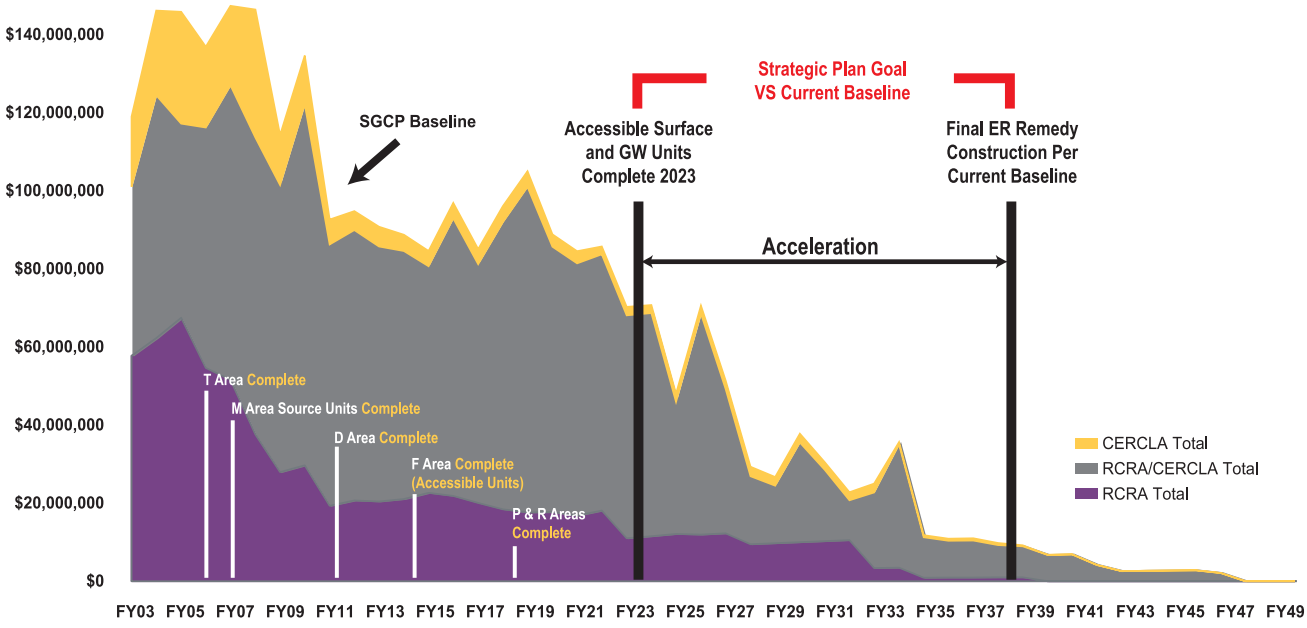
The stabilization of radioactive soil in a high-risk open basin was completed for one of the three C-Area Reactor Seepage Basins (CRSB). Engineers stabilized basin soil contaminated with radionuclides in-place using an innovative dual auger grouting rig to mix grout with the contaminated soil. Crews placed common soil over the grouted area to backfill and vegetate the basin. The two remaining basins each required common soil backfill and engineered low permeable soil covers for final closure. Grouting was not required for these two basins. The L-Rx Seepage Basin was recently completed using a soil cap to seal radioactive material in place. Future efforts will focus on closure of similar basins in P Area and R Area. Reactor groundwater plumes are also being assessed.

Completion Strategy Progress: Future Direction

At SRS, Soil & Groundwater Closure Projects will continue to focus on high-risk work. Furthermore, it has also adjusted its FY03-06 work scope to increase the number of sites scheduled for completion. Lastly, a working interface with the facilities deactivation and decommissioning organization has been established to facilitate mutual support, contribute to end state planning and maximize efficient project completion. This cooperative effort is accelerating activities taking place in TNX, D, M, and F Areas.

The Area Wide Closure concept and correlated interaction with D&D are receiving significant support and direction from an SRS/Regulators Management Team which, as the name implies, involves leaders from each of the associated stakeholders. Teams have been established and are developing key process improvements focused on gaining consensus on methods of accelerated closure.

These and other strategic initiatives previously identified are serving to implement this plan by accelerating risk reduction and ensuring a more rapid and less costly program completion.



SGCP Strategy vs Current Baseline

Upper Three Runs Area

SGCP Waste Units

SGCP Strategic Plan Data
Upper Three Runs Area
(A/M Areas, B Area, D Area)

FA	Waste Site #	Waste Site Location / Description	Class	Current Status	Waste Type	Owner by Team	Forecast Start Date	Challenge End Date (PMP forecast with Target Goal override) **
A	48	A-AREA MISCELLANEOUS RUBBLE PILE, 731-6A	Soil	In Remediation	Haz	UTR	2003	2005
M	100	M-AREA SETTLING BASIN INACTIVE PROCESS SEWERS TO MANHOLE 1, 081-M	Soil	Pre-FS	Haz	UTR	2005	2006
D	68	D-AREA ASH BASIN, 488-D	Soil	Pre-Char	Haz	UTR	2005	2007
D	273	D-AREA RUBBLE PIT, 431-2D	Soil	Pre-FS	Haz	UTR	2005	2007
A	45	A-AREA BURNING/RUBBLE PITS, 731-1A	GW / Soil	In Remediation	Haz	UTR	2006	2008
A	46	A-AREA BURNING/RUBBLE PITS, 731-A	GW / Soil	In Remediation	Haz	UTR	2003	2008
A	49	A-AREA RUBBLE PIT, 731-2A	GW / Soil	In Remediation	Haz	UTR	2003	2008
D	69	D-AREA COAL PILE RUNOFF BASIN, 489-D	Soil	Pre-Char	Haz	UTR	2010	2011
D	70	D-AREA WASTE OIL FACILITY, 484-D	Soil	Field Start	Haz	UTR	2010	2011
A	101	MISCELLANEOUS CHEMICAL BASIN, 731-4A	GW / Soil	In Remediation	Haz	UTR	2002	2011
A	102	METALS BURNING PITS, 731-5A	Soil	In Remediation	Haz	UTR	2002	2011
G	39	GUNSITE 218 RUBBLE PILE, 631-23G	Soil	Pre-FS	Haz	UTR	2013	2015
G	163	GUNSITE 012 RUBBLE PILE, NBN	Soil	Pre-FS	Haz	UTR	2013	2015
G	337	RUBBLE PILE ACROSS FROM GUNSITE 012, NBN	Soil	Pre-FS	Haz	UTR	2013	2015
G	544	ECODS G-3 (ADJACENT TO GUNSITE 012, NBN)	Soil	Pre-FS	Haz	UTR	2013	2015
A	***457	STORMWATER OUTFALL A-002, NBN	Soil	Pre-Char	Haz	UTR	2018	2019
A	***458	STORMWATER OUTFALL A-024, NBN	Soil	Pre-Char	Haz	UTR	2018	2019
A	***483	STORMWATER OUTFALL A-013, NBN	Soil	Pre-Char	Haz	UTR	2018	2019

SGCP Waste Units

SGCP Strategic Plan Data
Upper Three Runs Area
(A/M Areas, B Area, D Area)

FA	Waste Site #	Waste Site Location / Description	Class	Current Status	Waste Type	Owner by Team	Forecast Start Date	Challenge End Date (PMP forecast with Target Goal override) **
A	***387	SPILL ON 12/01/71 OF 1000 GAL OF RAD WATER FROM 773-A, NBN	Soil	Pre-Char	LLW	UTR	2019	2020
M	23	M-AREA HAZARDOUS WASTE MANAGEMENT FACILITY: A/M AREA GROUNDWATER PORTION, 904-110G	GW	In Remediation	Haz	UTR	1985	2020
A	***131	SRL 904-A PROCESS TRENCH, 904-A	Soil	Pre-Char	Haz	UTR	2019	2020
M	***24	SRL GROUNDWATER	GW	In Remediation	Haz	UTR	1992	2020
D	***520	D-AREA UPGRADIENT SOURCES	GW	Field Start	Haz	UTR	2019	2020
G	***456	STEED POND, NBN	Soil	Pre-Char	Mixed	UTR	2022	2023
A	***47	A-AREA COAL PILE RUNOFF BASIN, 788-3A	Soil	Pre-Char	Haz	UTR	2022	2023
A	***481	A-001 OUTFALL, NBN	Soil	Pre-Char	Haz	UTR	2022	2023

Note:
The Brown border line represents completion of the last accessible Surface Unit under the proposed accelerated schedule. The Aqua border represents completion of the last accessible Groundwater Unit under the proposed accelerated schedule.

**** Challenge End Dates reflect optimized projected completions that are contingent on favorable regulatory decisions and timely completion of facility decommissioning.**

***** These units are attached to or impacted by currently active facilities that inhibit earlier remediation.**

General Separations Area

SGCP Waste Units

SGCP Strategic Plan Data
General Separations Area
(F/H Areas, E, TNX Areas, Central Shops)

FA	Waste Site #	Waste Site Location / Description	Class	Current Status	Waste Type	Owner by Team	Forecast Start Date	Challenge End Date (PMP forecast with Target Goal override) **
N	75	FORD BUILDING SEEPAGE BASIN, 904-91G	Soil	Field Start	LLW	GS	2003	2004
N	58	CENTRAL SHOPS BURNING/RUBBLE PIT, 631-1G	Soil	Field Start	Haz	GS	2004	2005
N	59	CENTRAL SHOPS BURNING/RUBBLE PIT, 631-3G	Soil	Field Start	Haz	GS	2004	2005
T	104	NEW TNX SEEPAGE BASIN, 904-102G	Soil	Field Start	Haz	GS	2003	2005
G	125	ROAD A CHEMICAL BASIN, 904-111G	Soil	Field Start	None	GS	NA	2005
T	25	TNX GROUNDWATER, 082-G	GW	In Remediation	Haz	GS	2003	2006
T	106	OLD TNX SEEPAGE BASIN, 904-076G	Soil	Field Start	Haz	GS	2003	2006
T	139	TNX BURYING GROUND, 643-5G	Soil	Field Start	Haz	GS	2004	2006
T	467	X-001 OUTFALL DRAINAGE DITCH, NBN	Soil	Pre-FS	Haz	GS	2005	2006
T	500	TNX OUTFALL DELTA, LOWER DISCHARGE GULLY, AND SWAMP, NBN	Soil	Field Start	Mixed	GS	2006	2006
N	57	CENTRAL SHOPS BURNING/RUBBLE PIT, 631-5G	Soil	Field Start	Haz	GS	2006	2007
N	132	SRL OIL TEST SITE, 080-16G	Soil	Field Start	Haz	GS	2005	2007
N	502	HEAVY EQUIPMENT WASH BASIN	Soil	Field Start	Haz	GS	2006	2007
E	18	OLD RADIOACTIVE WASTE BURIAL GROUND (INCLUDING SOLVENT TANKS 650-01E-22E) 643-E (GSA)	Soil	In Remediation	LLW	GS	2003	2008
F	19	F & H-AREA HAZARDOUS WASTE MANAGEMENT FACILITIES (GROUNDWATER)	GW	In Remediation	Mixed	GS	2005	2008
H	27	WARNER'S POND, 685-23G (GSA)	Soil	In Remediation	LLW	GS	2003	2008
H	28	H-AREA RETENTION BASIN, 281-3H (GSA)	Soil	In Remediation	Mixed	GS	2003	2008
H	29	HP-52 PONDS, NBN (GSA)	Soil	In Remediation	LLW	GS	2003	2008

SGCP Waste Units

SGCP Strategic Plan Data
General Separations Area
(F/H Areas, E, TNX Areas, Central Shops)

FA	Waste Site #	Waste Site Location / Description	Class	Current Status	Waste Type	Owner by Team	Forecast Start Date	Challenge End Date (PMP forecast with Target Goal override) **
L	148	L-AREA ASH BASIN 188-0L	Soil	SE Unit	Haz	GS	2007	2008
H	398	SPILL ON 02/08/78 OF UNKNOWN OF H-AREA PROCESS SEWER LINE CAVE-IN, NBN (GSA)	Soil	In Remediation	Mixed	GS	2003	2008
H	405	SPILL ON 03/08/78 OF UNKNOWN OF SEEPAGE BASIN PIPE LEAK IN H-AREA SEEPAGE BASIN (GSA)	Soil	In Remediation	Mixed	GS	2003	2008
H	417	SPILL ON 05/01/56 OF UNKNOWN OF RETENTION BASIN PIPE LEAK, NBN (GSA)	Soil	In Remediation	Mixed	GS	2003	2008
H	274	DITCH TO OUTFALL H-13 (TRIBUTARY TO FOURMILE CREEK), NBN	Soil	Pre-FS	Haz	GS	2008	2009
F	147	F-AREA TANK FARM GROUNDWATER, NBN	GW	Pre-FS	HLW	GS	2010	2012
F	43	211-FB PU-239 RELEASE, 081-F	Soil	Pre-FS	LLW	GS	2011	2014
N	82	HYDROFLUORIC ACID SPILL, 631-4G	Soil	Pre-FS	Haz	GS	2012	2014
E	103	MIXED WASTE MANAGEMENT FACILITY (GROUNDWATER)	GW	In Remediation	Mixed	GS	2002	2014
F	***141	F-AREA INACTIVE PROCESS SEWER LINES FROM BUILDING TO THE SECURITY FENCE, 081-1F	Soil	Pre-FS	Mixed	GS	2013	2014
H	***142	H-AREA INACTIVE PROCESS SEWER LINES FROM BUILDING TO THE SECURITY FENCE, 081-H	Soil	Pre-FS	Mixed	GS	2013	2014
G	77	G-AREA OIL SEEPAGE BASIN, 761-13G	GW	Pre-FS	Haz	GS	2013	2015
ATTA	***208	ADVANCED TACTICAL TRAINING AREA (ATTA) FIRING RANGES, NBN	Soil	SE Unit	Haz	GS	NA	2023
F	***280	F-AREA RETENTION BASIN, 281-08F	Soil	Pre-FS	LLW	GS	2021	2023
H	***549	GENERAL SEPARATIONS AREA EASTERN GROUNDWATER OPERABLE UNIT, NBN	GW	In Remediation	HLW	GS	2023	2023
F	***482	F-AREA CANYON GROUNDWATER, NBN	GW	Pre-FS	Mixed	GS	2023	2024
H	***293	H-AREA RETENTION BASIN (INCLUDING THE FORMER 281-7H BASIN), 281-08H	Soil	Pre-FS	LLW	GS	2025	2026
H	***294	H-AREA RETENTION BASIN, 281-1H	Soil	Pre-FS	LLW	GS	2025	2026

SGCP Waste Units

SGCP Strategic Plan Data
General Separations Area
(F/H Areas, E, TNX Areas, Central Shops)

FA	Waste Site #	Waste Site Location / Description	Class	Current Status	Waste Type	Owner by Team	Forecast Start Date	Challenge End Date (PMP forecast with Target Goal override) **
H	***295	H-AREA RETENTION BASIN, 281-2H	Soil	Pre-FS	LLW	GS	2025	2026
H	***79	H-AREA COAL PILE RUNOFF BASIN, 289-H	Soil	Pre-FS	Haz	GS	2025	2027

Note:
The Brown border line represents completion of the last accessible Surface Unit under the proposed accelerated schedule. The Aqua border represents completion of the last accessible Groundwater Unit under the proposed accelerated schedule.

**** Challenge End Dates reflect optimized projected completions that are contingent on favorable regulatory decisions and timely completion of facility decommissioning.**

***** These units are attached to or impacted by currently active facilities that inhibit earlier remediation.**

Reactors Area

SGCP Waste Units

SGCP Strategic Plan Data
Reactors Area
(C, K, L, P, R Areas)

FA	Waste Site #	Waste Site Location / Description	Class	Current Status	Waste Type	Owner by Team	Forecast Start Date	Challenge End Date (PMP forecast with Target Goal override) **
L	78	GAS CYLINDER DISPOSAL FACILITY, 131-2L	Soil	In Remediation	Hazardous	RX	2003	2003
R	113	R-AREA BINGHAM PUMP OUTAGE PITS, 643-10G	Soil	In Remediation	LLW	RX	2003	2003
R	114	R-AREA BINGHAM PUMP OUTAGE PITS, 643-8G	Soil	In Remediation	LLW	RX	2003	2003
R	115	R-AREA BINGHAM PUMP OUTAGE PITS, 643-9G	Soil	In Remediation	LLW	RX	2003	2003
R	550	R-AREA UNKNOWN PIT #1 (RUNK-1), NBN	Soil	In Remediation	Haz	RX	2003	2003
R	551	R-AREA UNKNOWN PIT #2 (RUNK-2), NBN	Soil	In Remediation	Haz	RX	2003	2003
R	552	R-AREA UNKNOWN PIT #3 (RUNK-3), NBN	Soil	In Remediation	Haz	RX	2003	2003
L	93	L-AREA BURNING/RUBBLE PIT, 131-L	Soil	In Remediation	Hazardous	RX	2003	2003
L	306	L-AREA REACTOR SEEPAGE BASIN, 904-064G	Soil	In Remediation	HLW	RX	2003	2003
P	108	P-AREA BURNING/RUBBLE PIT, 131-P	GW / Soil	In Remediation	Haz	RX	2003	2004
L	169	L-AREA RUBBLE PILE, 131-3L	Soil	In Remediation	Haz	RX	2003	2004
L	94	L-AREA HOT SHOP (INCLUDING SANDBLAST AREA CML-003, NBN), 717-G	Soil	Field Start	LLW	RX	2004	2006
R	116	R-AREA BURNING/RUBBLE PITS, 131-1R	Soil	Pre-FS	Haz	RX	2005	2006
R	117	R-AREA BURNING/RUBBLE PITS, 131-R	Soil	Pre-FS	Haz	RX	2005	2006
R	118	R-AREA RUBBLE PILE, 631-25G	Soil	Pre-FS	Haz	RX	2005	2006
P	317	P-AREA REACTOR SEEPAGE BASIN, 904-061G	Soil	Pre-FS	LLW	RX	2004	2006
P	318	P-AREA REACTOR SEEPAGE BASIN, 904-062G	Soil	Pre-FS	LLW	RX	2004	2006
P	319	P-AREA REACTOR SEEPAGE BASIN, 904-063G	Soil	Pre-FS	LLW	RX	2004	2006

SGCP Waste Units

SGCP Strategic Plan Data
Reactors Area
(C, K, L, P, R Areas)

FA	Waste Site #	Waste Site Location / Description	Class	Current Status	Waste Type	Owner by Team	Forecast Start Date	Challenge End Date (PMP forecast with Target Goal override) **
C	51	C-AREA BURNING/RUBBLE PIT, 131-C	GW	In Remediation	Mixed	RX	2005	2007
C	566	OLD C-AREA BURNING/RUBBLE PIT, NBN	Soil	Interim Action	Mixed	RX	2005	2007
R	42	108-4R OVERFLOW BASIN, 108-4R	Soil	Pre-FS	LLW	RX	2005	2008
R	119	R-AREA REACTOR SEEPAGE BASINS, 904-103G	Soil	Pre-FS	LLW	RX	2005	2008
R	120	R-AREA REACTOR SEEPAGE BASINS, 904-104G	Soil	Pre-FS	LLW	RX	2005	2008
R	121	R-AREA REACTOR SEEPAGE BASINS, 904-57G	Soil	Pre-FS	LLW	RX	2005	2008
R	122	R-AREA REACTOR SEEPAGE BASINS, 904-58G	Soil	Pre-FS	LLW	RX	2005	2008
R	123	R-AREA REACTOR SEEPAGE BASINS, 904-59G	Soil	Pre-FS	LLW	RX	2005	2008
R	124	R-AREA REACTOR SEEPAGE BASINS, 904-60G	Soil	Pre-FS	LLW	RX	2005	2008
G	61	CMP PITS, 080-170G	GW / Soil	Interim Action	Mixed	RX	2006	2008
G	62	CMP PITS, 080-171G	GW / Soil	Interim Action	Mixed	RX	2006	2008
G	63	CMP PITS, 080-180G	GW / Soil	Interim Action	Mixed	RX	2006	2008
G	64	CMP PITS, 080-181G	GW / Soil	Interim Action	Mixed	RX	2006	2008
G	65	CMP PITS, 080-182G	GW / Soil	Interim Action	Mixed	RX	2006	2008
G	66	CMP PITS, 080-183G	GW / Soil	Interim Action	Mixed	RX	2006	2008
G	67	CMP PITS, 080-190G	GW / Soil	Interim Action	Mixed	RX	2006	2008
C	146	C-AREA REACTOR GROUNDWATER	GW	Interim Action	Mixed	RX	2007	2009
L	487	L-AREA SOUTHERN GROUNDWATER, NBN	GW	Pre-FS	Mixed	RX	2007	2009

SGCP Waste Units

SGCP Strategic Plan Data
Reactors Area
(C, K, L, P, R Areas)

FA	Waste Site #	Waste Site Location / Description	Class	Current Status	Waste Type	Owner by Team	Forecast Start Date	Challenge End Date (PMP forecast with Target Goal override) **
K	89	K-AREA SLUDGE LAND APPLICATION SITE, 761-4G	Soil	Pre-FS	Hazardous	RX	2010	2012
P	143	P-AREA REACTOR GROUNDWATER	GW	Pre-FS	Mixed	RX	2012	2014
L	99	L-AREA RUBBLE PIT, 131-4L	Soil	Pre-FS	Hazardous	RX	2015	2016
G	111	PAR POND SLUDGE LAND APPLICATION SITE, 761-5G	Soil	Pre-FS	Hazardous	RX	2012	2016
R	288	R-AREA GROUNDWATER, NBN	GW	Pre-FS	LLW	RX	2015	2016
R	312	OLD R-AREA DISCHARGE CANAL, NBN	Soil	Pre-FS	LLW	RX	2016	2016
K	460	K-AREA REACTOR DISCHARGE CANAL, NBN	Soil	Pre-FS	LLW	RX	2015	2016
P	462	P-AREA REACTOR DISCHARGE CANAL, NBN	Soil	Pre-FS	LLW	RX	2015	2017
L	98	L-AREA RUBBLE PIT, 131-1L	Soil	Pre-FS	Hazardous	RX	2016	2018
R	517	COMBINED SPILLS NORTH OF BUILDING 105-R, NBN	Soil	Pre-FS	Mixed	RX	2016	2018
G	307	L LAKE, NBN	Soil	Pre-FS	LLW	RX	NA	2019
C	504	FOURMILE BRANCH IOU (INCLUDING THE UN-NAMED TRIBUTARY OF FOURMILE BRANCH SOUTH OF C AREA	Soil	Pre-FS	Mixed	RX	2018	2019
G	509	STEEL CREEK IOU	Soil	Pre-FS	Mixed	RX	2019	2019
K	519	K-AREA REACTOR GROUNDWATER (INCLUDING TRITIUM ANOMALY)	GW	Pre-FS	Mixed	RX	2017	2019
C	511	C-AREA REACTOR DISCHARGE CANAL, NBN	Soil	Pre-FS	LLW	RX	2019	2020
G	***505	LOWER THREE RUNS IOU	Soil	Pre-FS	Mixed	RX	2021	2022
K	***506	PEN BRANCH IOU (INCLUDING INDIAN GRAVE BRANCH)	Soil	Pre-FS	Mixed	RX	2021	2022
L	503	L-AREA NORTHERN GROUNDWATER	GW	Pre-FS	LLW	RX	2022	2023

SGCP Waste Units

SGCP Strategic Plan Data
Reactors Area
(C, K, L, P, R Areas)

FA	Waste Site #	Waste Site Location / Description	Class	Current Status	Waste Type	Owner by Team	Forecast Start Date	Challenge End Date (PMP forecast with Target Goal override) **
G	***110	PAR POND (INCLUDING THE PRE-COOLER PONDS AND CANALS), 685-G	Soil	Pre-FS	Mixed	RX	NA	2023
G	***507	SAVANNAH RIVER IOU	Soil	Field Start	Mixed	RX	2022	2023
D	***508	SAVANNAH RIVER FLOODPLAIN SWAMP IOU (INCLUDING STEEL CREEK SWAMP AND BEAVER DAM CREEK)	Soil	Field Start	Mixed	RX	2022	2023
AT TA	***510	UPPER THREE RUNS IOU (INCLUDING TIMS BRANCH)	Soil	Pre-FS	Mixed	RX	2022	2023

Note:
The Brown border line represents completion of the last accessible Surface Unit under the proposed accelerated schedule. The Aqua border represents completion of the last accessible Groundwater Unit under the proposed accelerated schedule.

**** Challenge End Dates reflect optimized projected completions that are contingent on favorable regulatory decisions and timely completion of facility decommissioning.**

***** These units are attached to or impacted by currently active facilities that inhibit earlier remediation.**

Site Evaluation Units

SGCP Waste Units

SRS Integrated Plan Data
Site Evaluation Units

FA	Waste Site #	Waste Site Location / Description	Class	Current Status	Waste Type	Owner by Team	Forecast Start Date	Challenge End Date (PMP forecast with Target Goal override) **
A	236	A-AREA ASH PILE, 788-0A	Soil	SE Unit	Haz	GS	*	*
A	237	A-AREA ASH PILE, 788-2A	Soil	SE Unit	Haz	GS	*	*
A	340	SALVAGE YARD, 740-A	Soil	SE Unit	Haz	GS	*	*
A	359	SMALL ARMS TRAINING AREA (SATA), NBN	Soil	SE Unit	Haz	GS	*	*
A	376	SPILL ON 01/19/83 OF 1000 FT2 OF RADIOACTIVE SPILL	Soil	SE Unit	Mixed	GS	*	*
A	399	SPILL ON 03/01/66 OF 500 SQ FT OF FLUSH WATER - RAD, NBN	Soil	SE Unit	LLW	GS	*	*
A	436	SPILL ON 06/16/87 OF ~1 GAL OF WATER - RAD, NBN	Soil	SE Unit	LLW	GS	*	*
A	449	SPILL ON 09/01/85 OF <1 LB OF MERCURY FROM 748-A, NBN	Soil	SE Unit	Haz	GS	*	*
AM	465	UNDERGROUND SUMP 321 M #001 321-M	Soil	SE Unit	HLW	GS	*	*
AM	466	UNDERGROUND SUMP 321 M #002 321-M	Soil	SE Unit	HLW	GS	*	*
B	491	SANDBLAST AREA CMB-001, NBN	Soil	SE Unit	Haz	GS	*	*
B	526	ECODS B-1A, 1B (SOUTH OF B AREA)	Soil	SE Unit	Haz	GS	*	*
B	527	ECODS B-2 (SOUTH OF B AREA)	Soil	SE Unit	Haz	GS	*	*
B	528	ECODS B-3 (EAST OF B AREA, SOUTH OF ROAD C)	Soil	SE Unit	Haz	GS	*	*
B	529	ECODS B-4 (EAST OF B AREA, SOUTH OF ROAD C)	Soil	SE Unit	Haz	GS	*	*
B	530	ECODS B-5 (ADJACENT TO ECODS B-3)	Soil	SE Unit	Haz	GS	*	*
C	210	C-AREA ASH PILE, 188-0C	Soil	SE Unit	Haz	GS	*	*
C	240	C-AREA DISASSEMBLY BASIN, 105-C	Soil	SE Unit	LLW	GS	*	*

SGCP Waste Units

SRS Integrated Plan Data
Site Evaluation Units

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C	242	C-AREA REACTOR COOLING WATER SYSTEM, 186/190-C	Soil	SE Unit	LLW	GS	*	*
C	391	SPILL ON 02/01/83 OF 50 GAL OF Oil - RAD, NBN	Soil	SE Unit	LLW	GS	*	*
C	489	C-AREA ASH PILE OFF POWERLINE ROAD, NBN	Soil	SE Unit	Haz	GS	*	*
C	522	ECODS C-1 (NEAR C-AREA REACTOR DISCHARGE CANAL)	Soil	SE Unit	Haz	GS	*	*
D	229	UNIDENTIFIED TRASH PILE, NBN	Soil	SE Unit	Haz	GS	*	*
D	238	D-AREA ASH BASIN, 488-1D	Soil	SE Unit	Haz	GS	*	*
D	265	COMBINED SPILLS FROM 483-D AND ASSOCIATED AREAS, NBN	Soil	SE Unit	Haz	GS	*	*
D	272	D-AREA ASH BASIN, 488-2D	Soil	SE Unit	Haz	GS	*	*
D	543	ECODS D-1 (NEAR D-AREA RUBBLE PILE, 431-2D)	Soil	SE Unit	Haz	GS	*	*
D	548	D-AREA ASH BASIN, 488-4D	Soil	SE Unit	Haz	GS	*	*
F	263	COMBINED SPILLS FROM 242-F, NBN	Soil	SE Unit	Mixed	GS	*	*
F	266	COMBINED SPILLS FROM 643-G, NBN	Soil	Pre-FS	LLW	GS	*	*
F	270	COMBINED SPILLS FROM 701-1F SPILL, NBN	Soil	SE Unit	LLW	GS	*	*
F	276	F-AREA ASH BASIN, 288-0F	Soil	SE Unit	Haz	GS	*	*
F	277	F-AREA ASH BASIN, 288-1F	Soil	SE Unit	Haz	GS	*	*
F	283	F-AREA TANK FARM, 241-F	Soil	SE Unit	Mixed	GS	*	*
F	308	LOW LEVEL RADIOACTIVE DRAIN LINES, 772-F	Soil	SE Unit	LLW	GS	*	*
F	343	SANDBLAST AREA CMF-001, NBN	Soil	SE Unit	Haz	GS	*	*

SGCP Waste Units

SRS Integrated Plan Data
Site Evaluation Units

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F	380	SPILL ON 10/01/71 OF 100 SQ FT OF FLUSH WATER - RAD, NBN	Soil	SE Unit	LLW	GS	*	*
F	381	SPILL ON 10/16/81 OF 30 GAL OF LOW LEVEL WASTE FROM TRAILER, NBN	Soil	SE Unit	LLW	GS	*	*
F	394	SPILL ON 02/25/85 OF 20000 CM OF WATER VAPOR - RAD, NBN	Soil	SE Unit	LLW	GS	*	*
F	411	SPILL ON 04/14/81 OF 3 GAL OF CONTAMINATED FLUSH WATER, NBN	Soil	SE Unit	LLW	GS	*	*
F	414	SPILL ON 04/24/91 OF .11 CI OF PU 239, 772-1F	Soil	Pre-FS	Haz	GS	*	*
F	418	SPILL ON 05/01/71 OF UNKNOWN OF SEEPAGE BASIN PIPE LEAK, NBN	Soil	SE Unit	Mixed	GS	*	*
F	429	SPILL ON 05/26/88 OF 10 GAL OF ETHYLENE GLYCOL-RAD FROM 772-F, NBN	Soil	Pre-FS	Haz	GS	*	*
F	431	SPILL ON 05/28/81 OF 9000 GAL OF CHROMATED WATER, NBN	Soil	SE Unit	LLW	GS	*	*
F	432	SPILL ON 05/30/78 OF UNKNOWN OF SUMP OVERFLOW, NBN	Soil	SE Unit	LLW	GS	*	*
F	435	SPILL ON 06/01/59 OF <1 CI OF SEGREGATED SOLVENT FROM 211-F, NBN	Soil	SE Unit	Haz	GS	*	*
F	438	SPILL ON 06/26/75 OF 250 CU FT OF RAD CONTAMINATED SOIL, NBN	Soil	SE Unit	LLW	GS	*	*
F	442	SPILL ON 06/06/79 OF <1 GAL OF CONTAMINATED LIQUID, NBN	Soil	SE Unit	LLW	GS	*	*
F	485	COMBINED SPILLS FROM 221-F, NBN	Soil	SE Unit	Mixed	GS	*	*
F	490	SPILL ON 04/57 OF RAD LIQUID FROM SOLVENT TRAILER, NBN	Soil	SE Unit	LLW	GS	*	*
G	310	NEUTRALIZATION SUMP, 678-T	Soil	SE Unit	Haz	GS	*	*
H	260	COMBINED SPILLS FROM 211-H, NBN	Soil	SE Unit	LLW	GS	*	*
H	261	COMBINED SPILLS FROM 241-84H, NBN	Soil	SE Unit	Mixed	GS	*	*
H	262	COMBINED SPILLS FROM 241-H, NBN	Soil	SE Unit	LLW	GS	*	*

SGCP Waste Units

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Site Evaluation Units

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H	264	COMBINED SPILLS FROM 242-H, NBN	Soil	SE Unit	LLW	GS	*	*
H	275	DIVERSION BOX - RADIOACTIVITY FROM 907-1H, NBN	Soil	SE Unit	LLW	GS	*	*
H	292	H-AREA ASH BASIN, 288-0H	Soil	SE Unit	Haz	GS	*	*
H	298	H-AREA TANK FARM, 241-H	Soil	SE Unit	LLW	GS	*	*
H	332	SPILL ON 10/07/85 OF 20,000 GALLONS OF CONTAMINATED WATER FROM 244-H, NBN	Soil	SE Unit	LLW	GS	*	*
H	344	SANDBLAST AREA CMH-001, NBN	Soil	SE Unit	Haz	GS	*	*
H	345	SANDBLAST AREA CMH-003, NBN	Soil	SE Unit	Haz	GS	*	*
H	346	SANDBLAST AREA CMH-002, NBN	Soil	SE Unit	Haz	GS	*	*
H	374	SPILL ON 01/12/87 OF <100 GM OF MERCURY NORTH OF 211-H, NBN	Soil	SE Unit	Haz	GS	*	*
H	375	SPILL ON 01/19/80 OF UNKNOWN OF CHROMATED WATER FROM H-AREA PUMP HOUSE, NBN	Soil	SE Unit	LLW	GS	*	*
H	383	SPILL ON 11/10/81 OF 500 GAL OF CHROMATED WATER FROM 243-H, NBN	Soil	SE Unit	LLW	GS	*	*
H	390	SPILL ON 02/01/69 OF UNKNOWN OF WASTE TANK SPILL, NBN	Soil	SE Unit	LLW	GS	*	*
H	403	SPILL ON 03/28/87 OF <15000 GAL OF CHROMATED WATER FROM 241-24H, NBN	Soil	SE Unit	Haz	GS	*	*
H	412	SPILL ON 04/18/80 OF UNKNOWN OF CHROMATED WATER FROM VALVE HOUSE 3, NBN	Soil	SE Unit	Haz	GS	*	*
H	423	SPILL ON 05/02/85 OF 10 GAL OF COOLING WATER FROM TANK FARM, NBN	Soil	SE Unit	Haz	GS	*	*
H	459	STORMWATER OUTFALL H-013, NBN	Soil	Pre-FS	Haz	GS	*	*
H	512	COMBINED SPILLS FROM 221-H, NBN	Soil	SE Unit	Mixed	GS	*	*
H	531	ECODS H-1 (WEST OF MAIN H-AREA FACILITIES)	Soil	SE Unit	Haz	GS	*	*

SGCP Waste Units

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Site Evaluation Units

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H	554	H-AREA PROCESS SEWER LINES AS ABANDONED, NBN	Soil	SE Unit	Mixed	GS	*	*
K	300	K-AREA ASH BASIN, 188-0K	Soil	SE Unit	Haz	GS	*	*
K	301	K-AREA DISASSEMBLY BASIN, 105-K	Soil	SE Unit	LLW	GS	*	*
K	302	K-AREA REACTOR COOLING WATER SYSTEM, 186/190-K	Soil	SE Unit	LLW	GS	*	*
K	476	K REACTOR AREA: K-AREA REACTOR AREA CASK CAR RAILROAD TRACKS AS ABANDONED, NBN	Soil	SE Unit	LLW	GS	*	*
K	514	COMBINED SPILLS FROM 105-K, 106-K, AND 109-K, NBN	Soil	SE Unit	LLW	GS	*	*
K	532	ECODS K-1 (SOUTHEAST OF FORMER LAYDOWN YARD AT K AREA)	Soil	SE Unit	Haz	GS	*	*
K	534	ECODS K-3 (SOUTHEAST OF K AREA IN FORMER LAYDOWN YARD)	Soil	SE Unit	Haz	GS	*	*
L	303	L-AREA DISASSEMBLY BASIN, 105-L	Soil	SE Unit	LLW	GS	*	*
L	305	L-AREA REACTOR COOLING WATER SYSTEM, 186/190-L	Soil	SE Unit	LLW	GS	*	*
L	452	SPILL ON 09/21/84 OF 200 GAL OF WATER -RAD, NBN	Soil	SE Unit	LLW	GS	*	*
L	479	L REACTOR AREA: L-AREA REACTOR AREA CASK CAR RAILROAD TRACKS AS ABANDONED, NBN	Soil	SE Unit	LLW	GS	*	*
L	535	ECODS L-1 (EAST OF L AREA)	Soil	SE Unit	Haz	GS	*	*
L	537	ECODS L-3 (EAST OF L AREA)	Soil	SE Unit	Haz	GS	*	*
M	234	313-M AND 320-M INACTIVE CLAY PROCESS SEWERS TO TIMS BRANCH, NBN	Soil	SE Unit	Mixed	GS	*	*
M	326	POTENTIAL RELEASE OF TCT, TET TCE, HNO3, U, HEAVY METALS FROM 321-M ABANDONED SEWER LINE, NBN	Soil	SE Unit	Mixed	GS	*	*
N	244	CENTRAL SHOPS SCRAP LUMBER PILE, 631-2G	Soil	SE Unit	Haz	GS	*	*
N	309	MISCELLANEOUS RUBBLE PILE, 631-7G	Soil	SE Unit	Haz	GS	*	*

SGCP Waste Units

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N	311	NEW SALVAGE YARD, 741-G	Soil	SE Unit	Haz	GS	*	*
N	354	SANDBLAST AREA CMN-001, NBN	Soil	SE Unit	Haz	GS	*	*
N	525	ECODS N-1 (SOUTH OF N AREA)	Soil	SE Unit	Haz	GS	*	*
P	313	P-AREA ASH BASIN, 188-0P	Soil	SE Unit	Haz	GS	*	*
P	314	P-AREA DISASSEMBLY BASIN, 105-P	Soil	SE Unit	LLW	GS	*	*
P	316	P-AREA REACTOR COOLING WATER SYSTEM, 186/190-P	Soil	SE Unit	LLW	GS	*	*
P	477	P REACTOR AREA: P-AREA REACTOR AREA CASK CAR RAILROAD TRACKS AS ABANDONED, NBN	Soil	SE Unit	LLW	GS	*	*
P	557	P-AREA PROCESS SEWER LINES AS ABANDONED, NBN	Soil	SE Unit	LLW	GS	*	*
R	230	R-AREA CONCRETE LAKE, 183-1R/186R	Soil	SE Unit	Haz	GS	*	*
R	231	AREA ON THE NORTH SIDE OF BUILDING 105-R, NBN	Soil	SE Unit	HLW	GS	*	*
R	233	LAYDOWN AREA NORTH OF 105R, NBN	Soil	SE Unit	Haz	GS	*	*
R	324	POTENTIAL RELEASE OF NAOH/H2 SO4 FROM 183-2R, NBN	Soil	SE Unit	Haz	GS	*	*
R	329	R-AREA ASH BASIN, 188-0R	Soil	SE Unit	Haz	GS	*	*
R	330	R-AREA DISASSEMBLY BASIN, 105-R	Soil	SE Unit	LLW	GS	*	*
R	478	R REACTOR AREA: R-AREA REACTOR AREA CASK CAR RAILROAD TRACKS AS ABANDONED, NBN	Soil	SE Unit	LLW	GS	*	*
R	513	RELEASE FROM THE DECONTAMINATION OF R-AREA REACTOR DISASSEMBLY BASIN, NBN	Soil	SE Unit	LLW	GS	*	*
R	556	R-AREA PROCESS SEWER LINES AS ABANDONED, NBN	Soil	SE Unit	LLW	GS	*	*
RR	546	DUNBARTON RAILROAD YARD, NBN	Soil	SE Unit	Haz	GS	*	*

SGCP Waste Units

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FA	Waste Site #	Waste Site Location / Description	Class	Current Status	Waste Type	Owner by Team	Forecast Start Date	Challenge End Date (PMP forecast with Target Goal override) **
T	127	Spill on 1/12/53 of 1/2 Ton of Uranyl Nitrate, NBN	Soil	Field Start	Haz	GS	*	*

*
Site Evaluation (SE) Units are generally small units not incorporated in the base program that are assessed for further action or declared No Further Action (NFA) at a rate of 16 per year. Per regulatory aggreement, accessible units in this comprehensive set are projected for completion prior to 2023.

**** Challenge End Dates reflect optimized projected completions that are contingent on favorable regulatory decisions and timely completion of facility decommissioning.**

***** These units are attached to currently active facilities that inhibit earlier remediation.**

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SOIL AND GROUNDWATER
CLOSURE PROJECTS